CAN THO UNIVERSITY
COLLEGE OF ICT

COMPUTER NETWORK
(CT106H)

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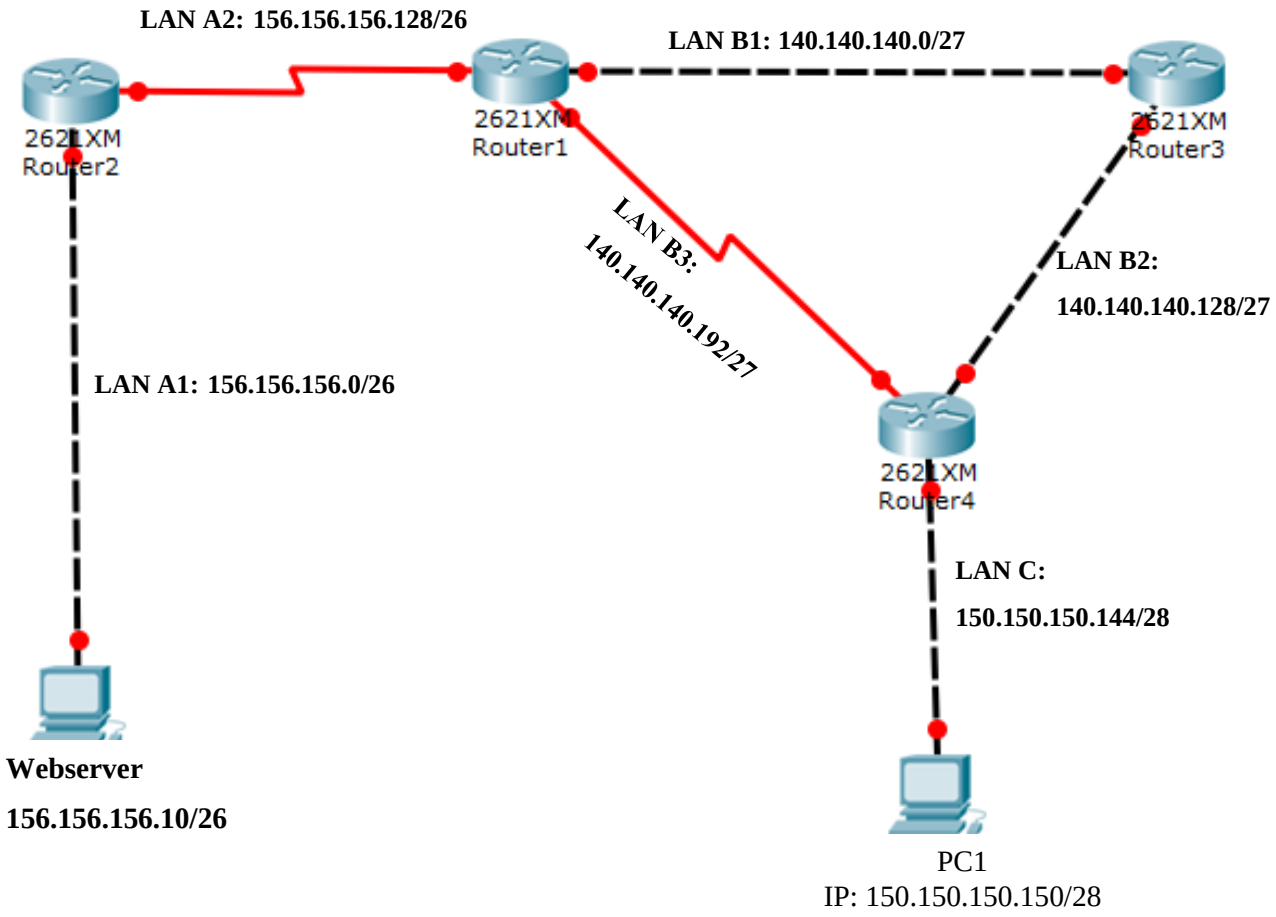
Group: M04

Construct a network system as follows:

- LAN A has a single network address of 156.156.156.0/24, using static routing. LAN A is divided into 2 subnets, consisting of A1 and A2. In addition, there is a Web server running a simple webpage showing "YEAH! My name is *YOUR_FULL_NAME*" (replace *YOUR_FULL_NAME* by your full name) in LAN A1.
- LAN B1 has a network address of 140.140.140.0/27, using the RIPv2 protocol.
- LAN B2 has a network address of 140.140.140.128/27, using the RIPv2 protocol.
- LAN B3 has a network address of 140.140.140.192/27, using the RIPv2 protocol.
- LAN C includes PC1 and Router 4. The IP address of PC1 is 150.150.150.150/28.



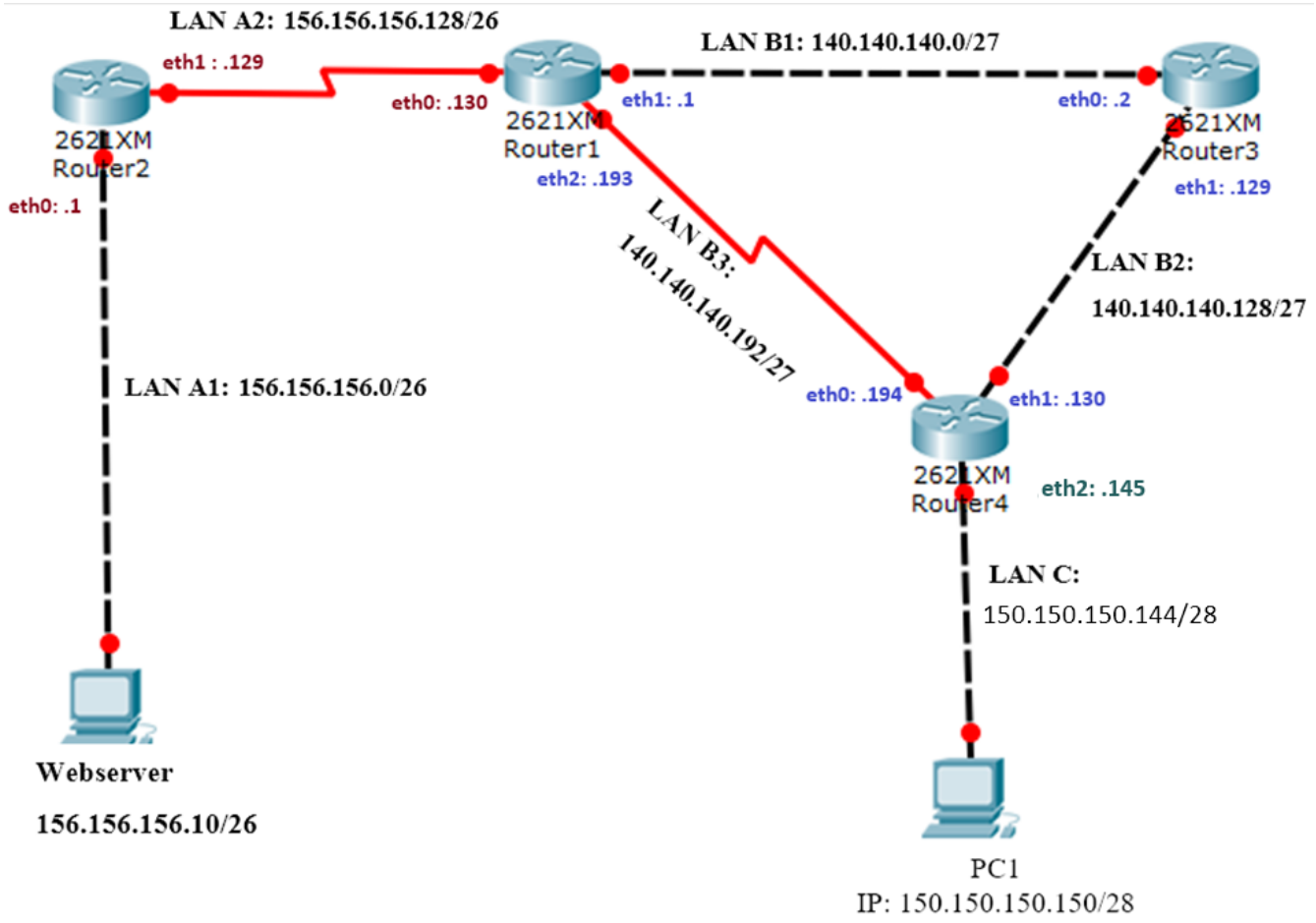
Please take screenshots showing:

1. (0,5 point) select and assign the IP addresses for all of the Ethernet interfaces.
2. (1,0 point) the directory tree structure of this network system (using the ***tree*** command).
3. (1,0 point) the content of the file *lab.conf*?
4. (5,0 points) the content of all files **. startup*
5. (1,0 point) the contents of all files and commands you use in order to set up the web service on the web server
6. (0,5 point) the command line to check the hops for transmitting data from PC1 to the web server? List all hops between PC1 and the Web server.
7. (1,0 points) check the network system constructed (using the ***ping*** command).

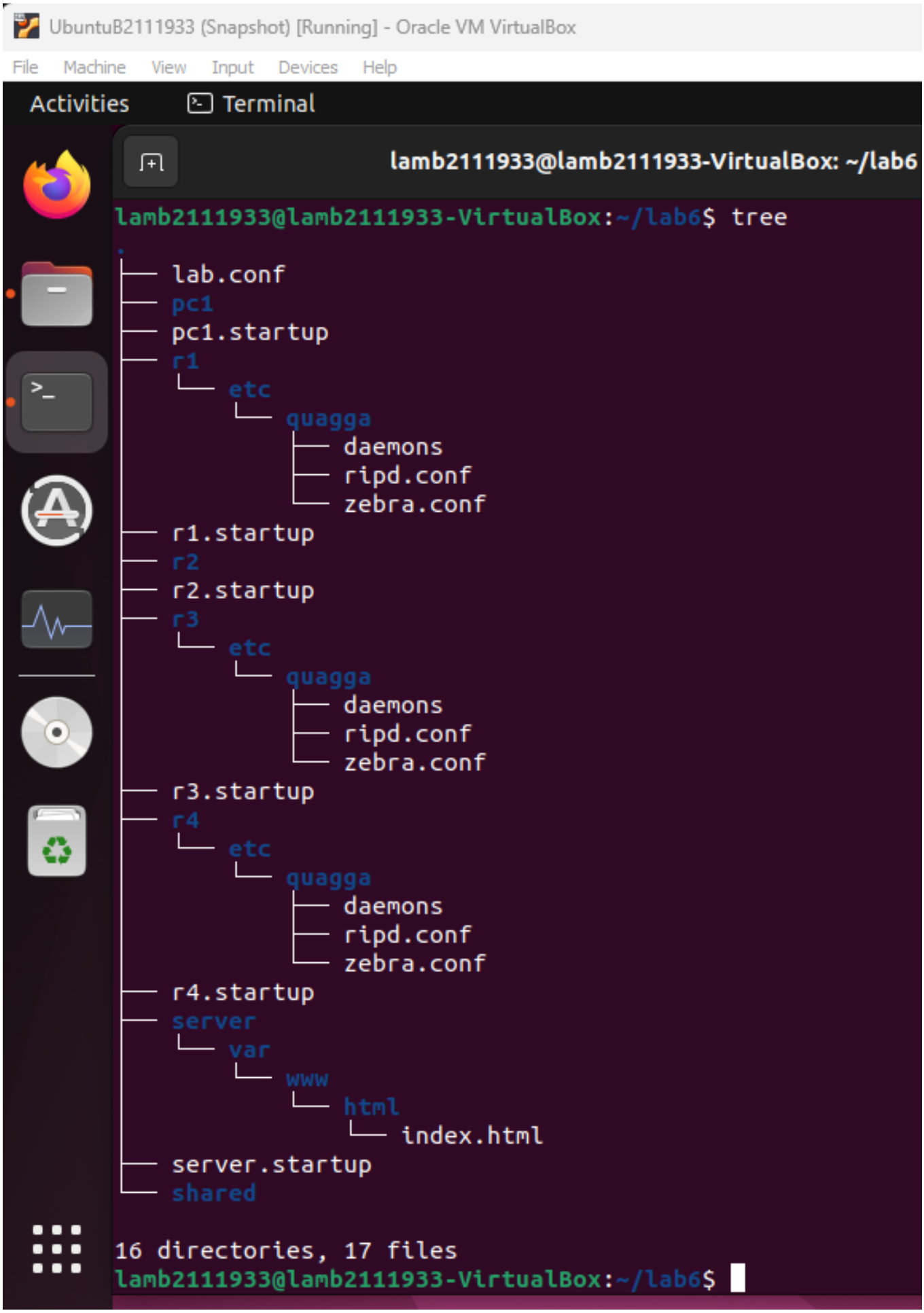
**********GOOD LUCK**********

Table Of Contents

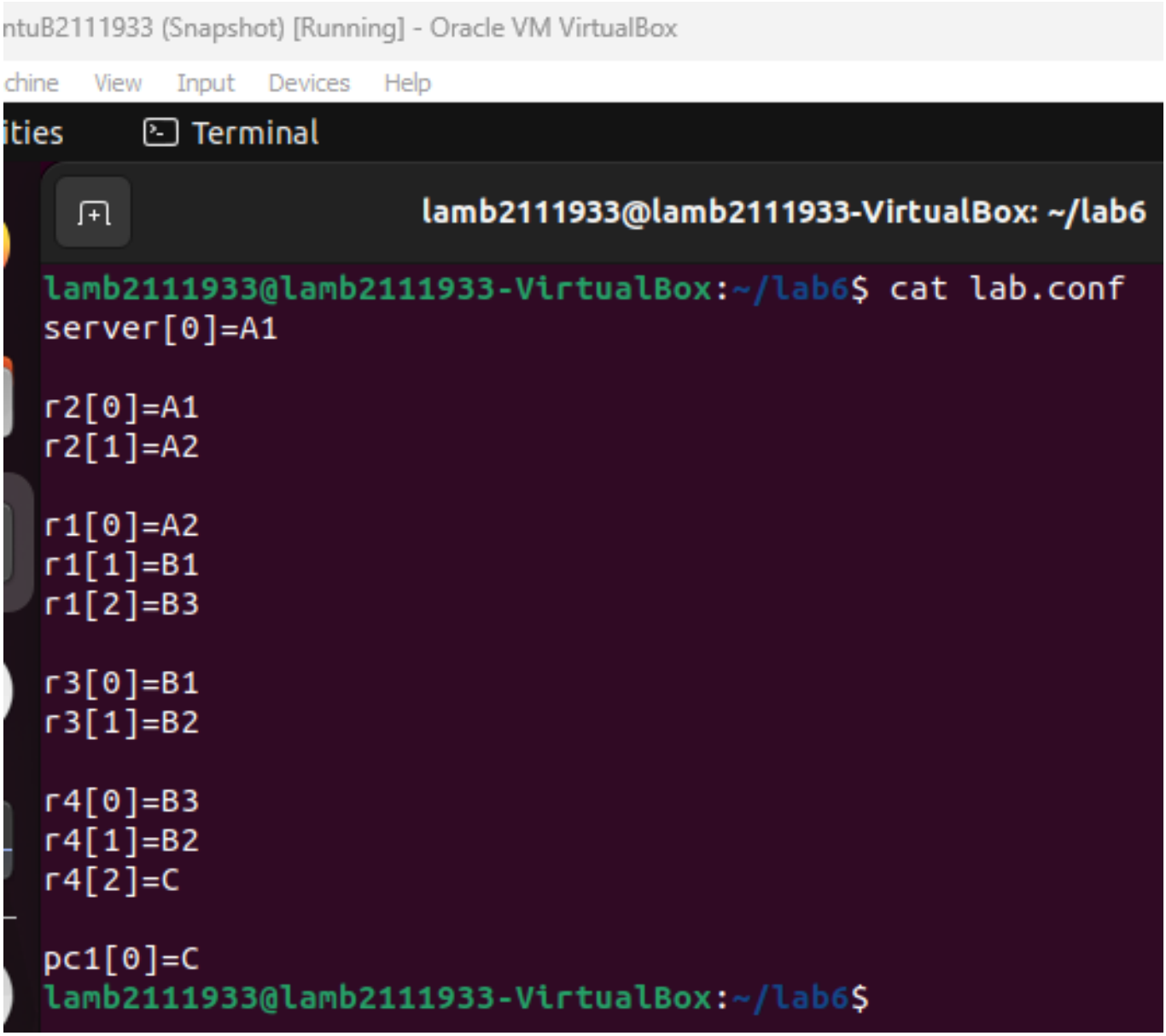
1. Select and assign the IP addresses for all of the Ethernet interfaces.



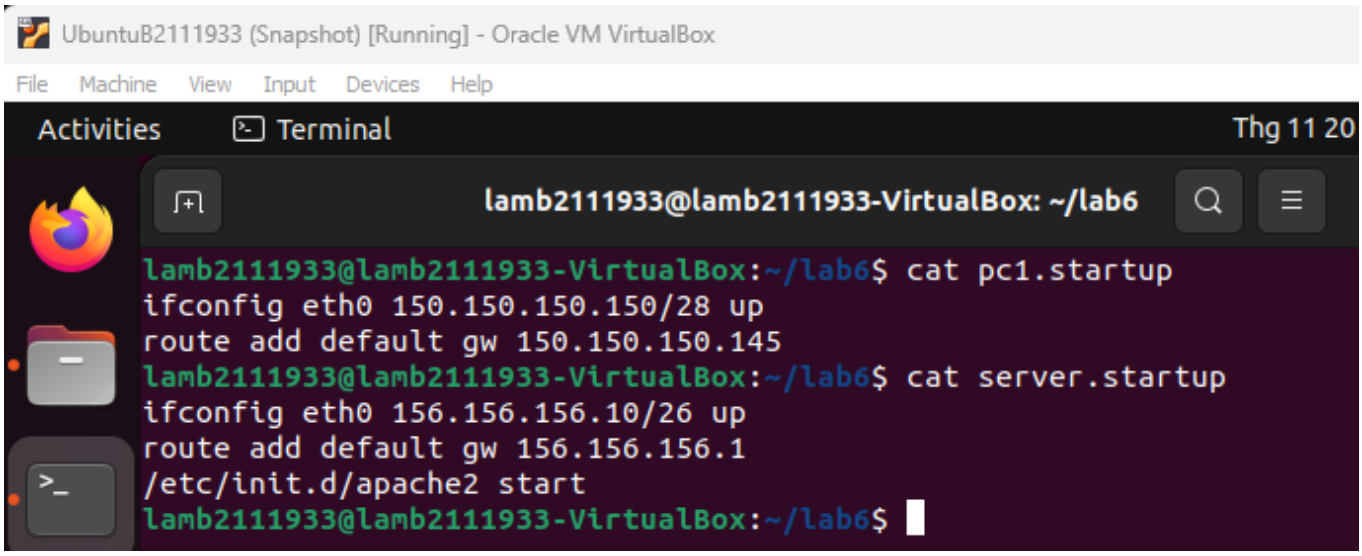
2. The directory tree structure of this network system

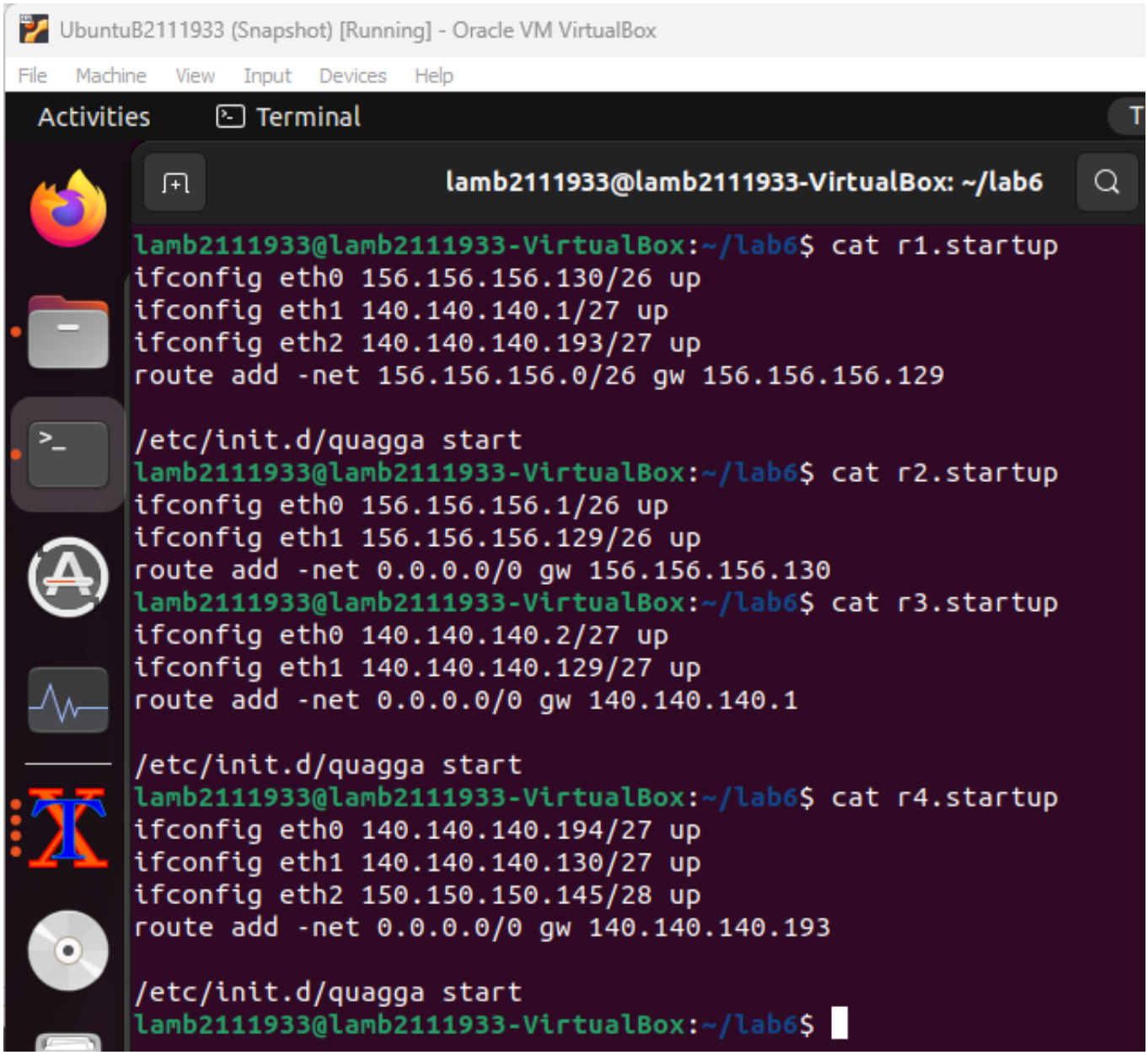


3. the content of the file *lab.conf*

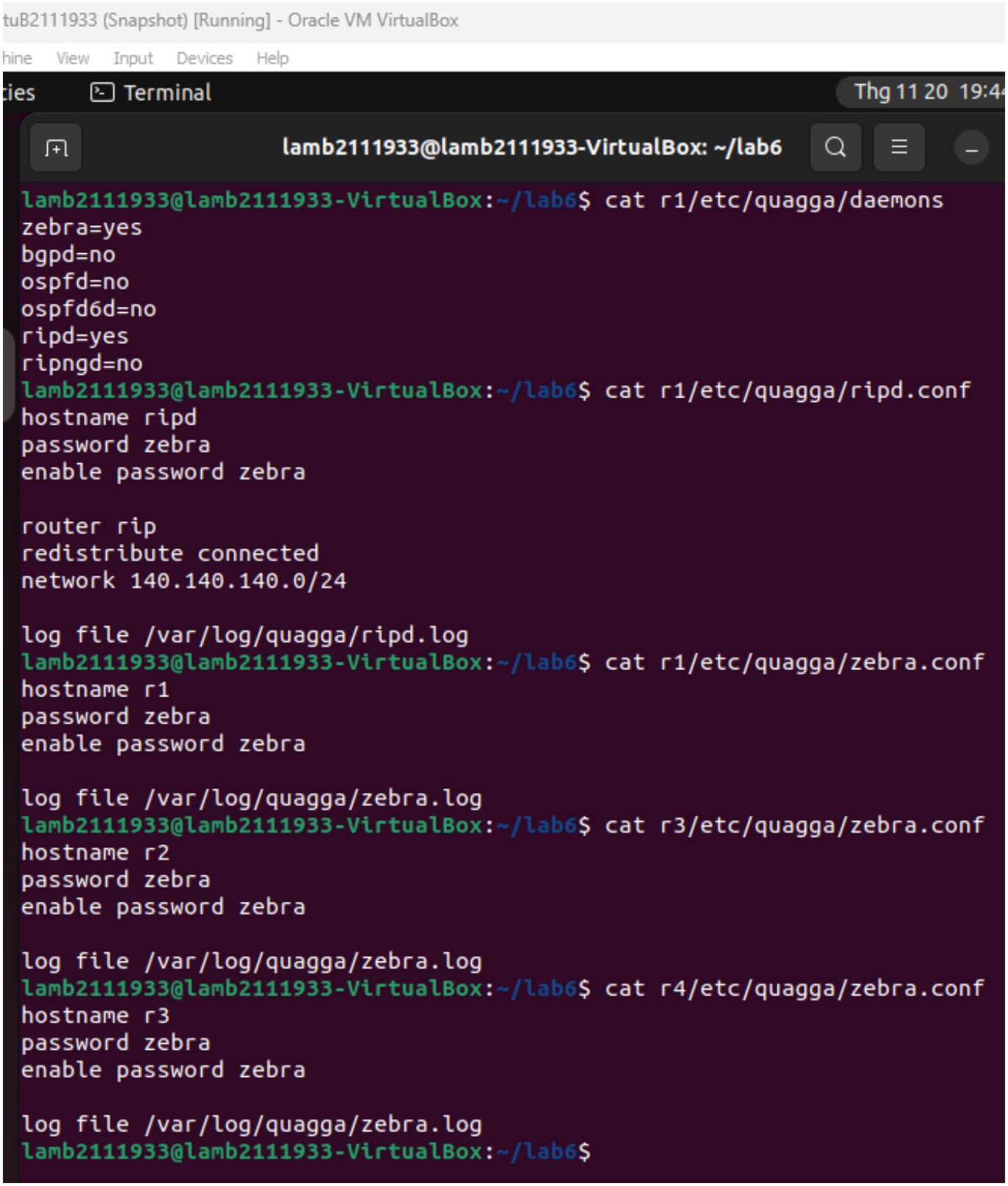


4. the content of all files *. startup



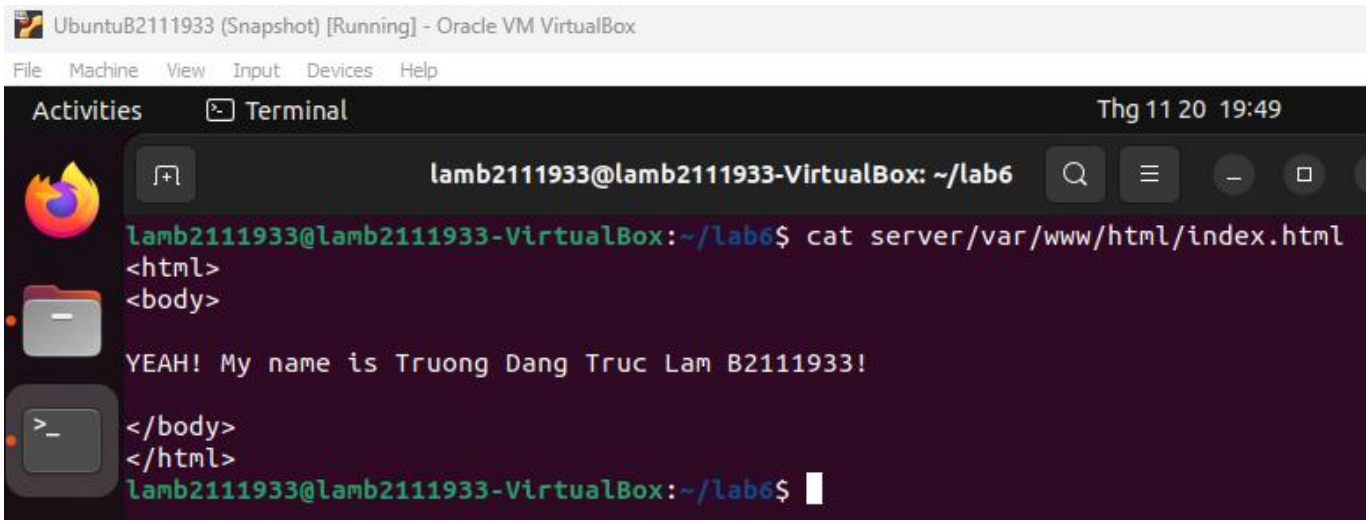


*RIPv2 configuration

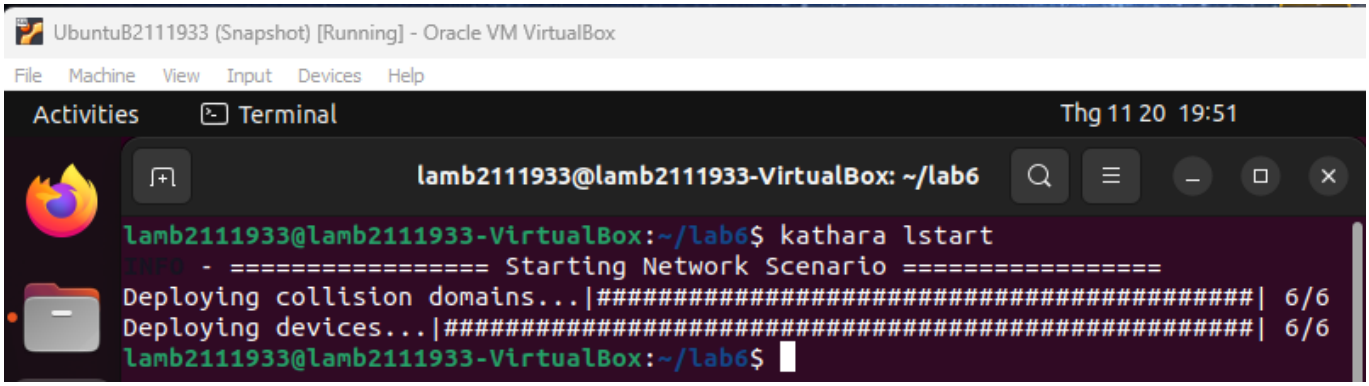


5. The contents of all files and commands you use in order to set up the web service on the web server

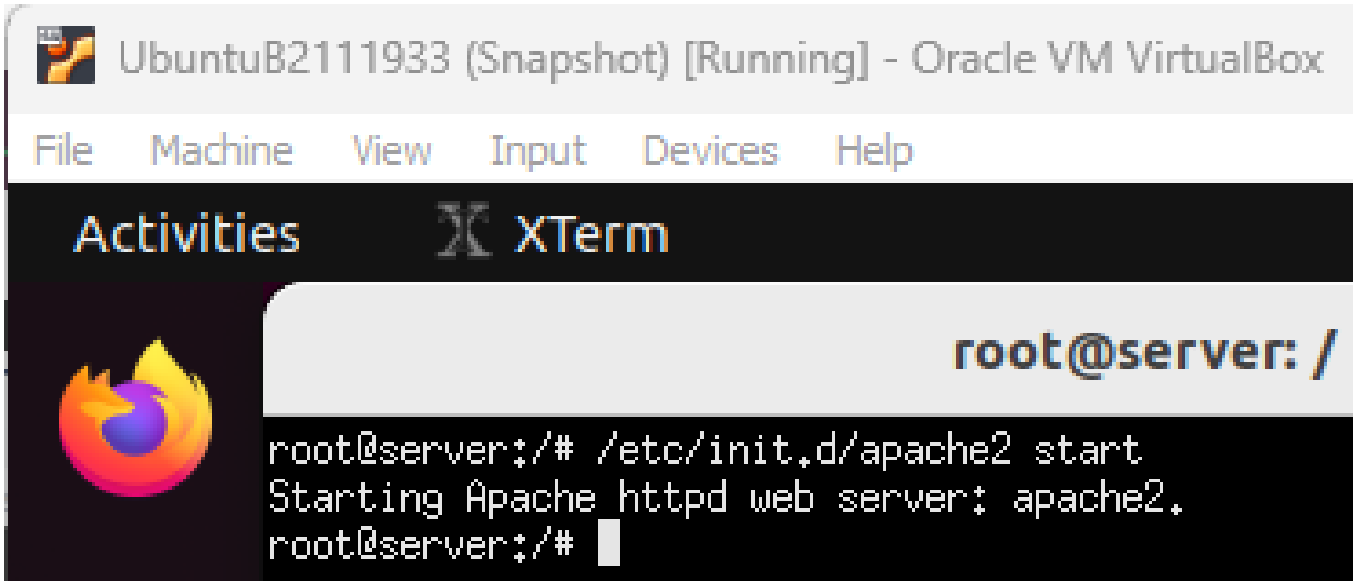
The contents of file **index.html**:



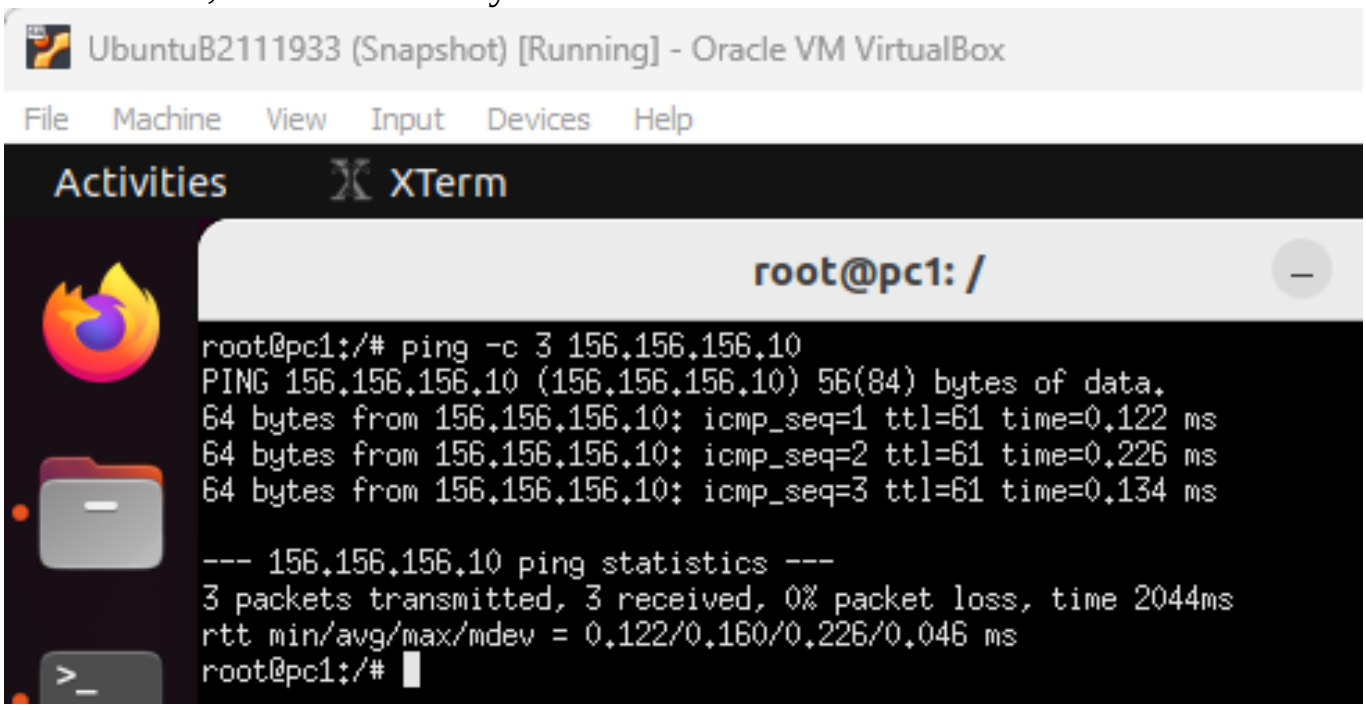
Start the lab with **$ kathara lstart**



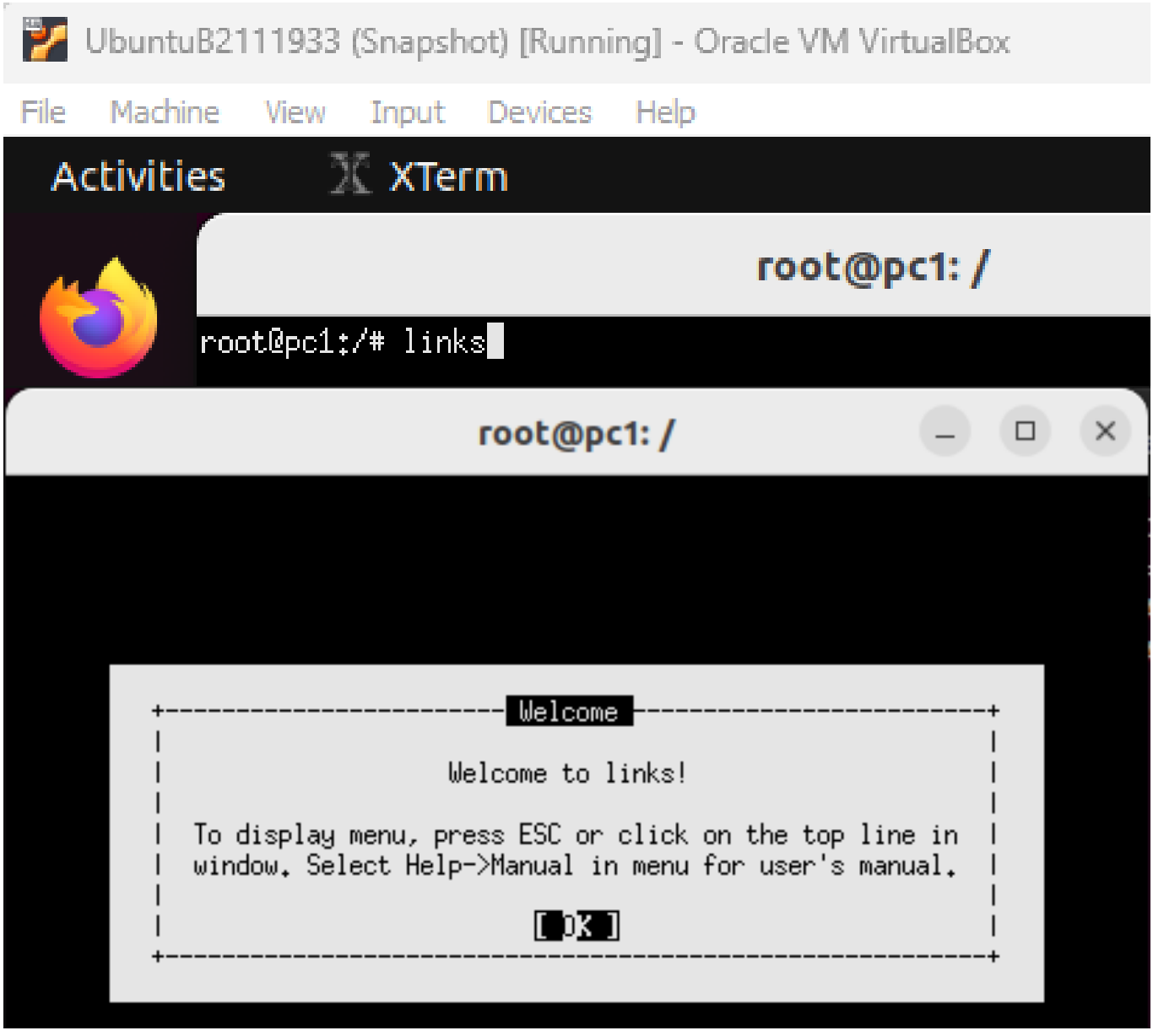
On **server**:



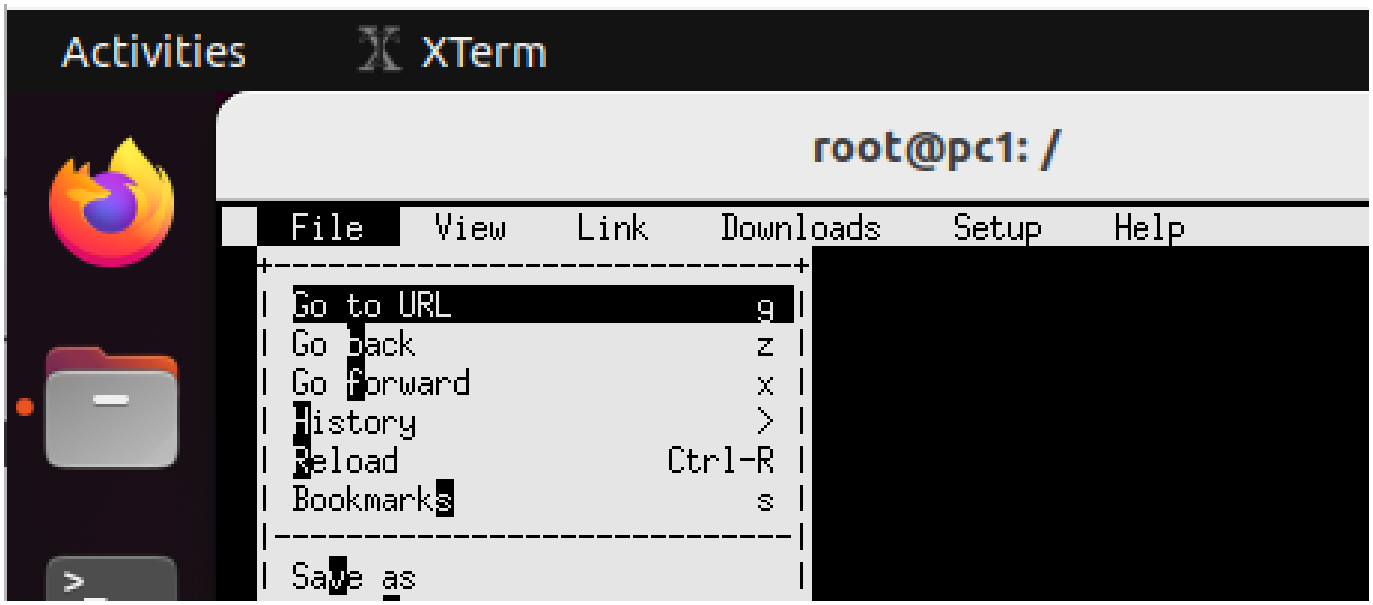
From **client**, test connectivity:



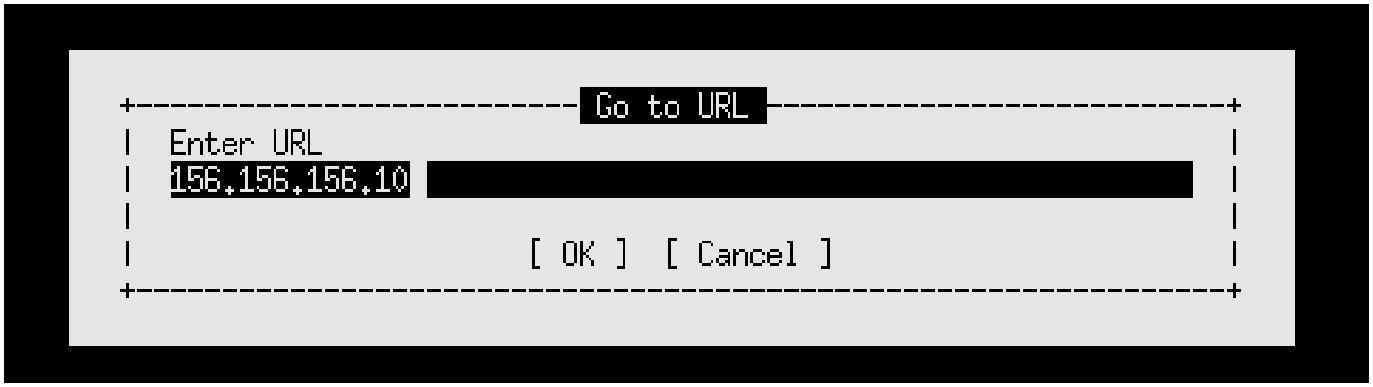
Use **links** command from **client**



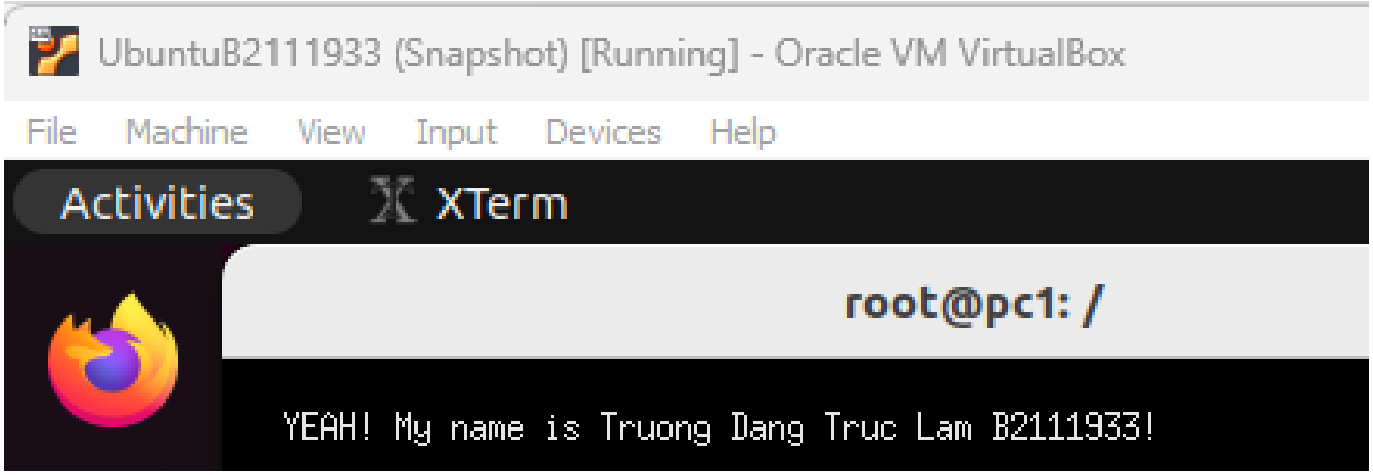
Press **F10**, then select **“Go to URL”**



Enter the **IP Address** of **server**

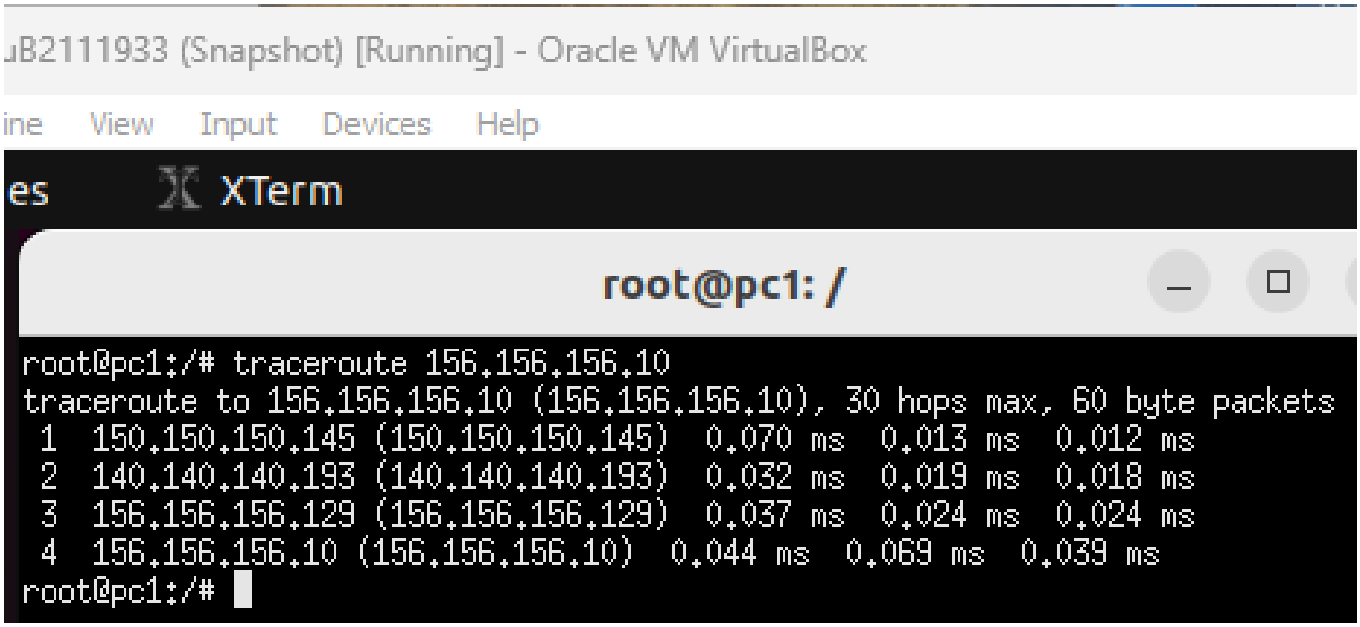


Successful!



6. The command line to check the hops for transmitting data from PC1 to the web server? List all hops between PC1 and the Web server.

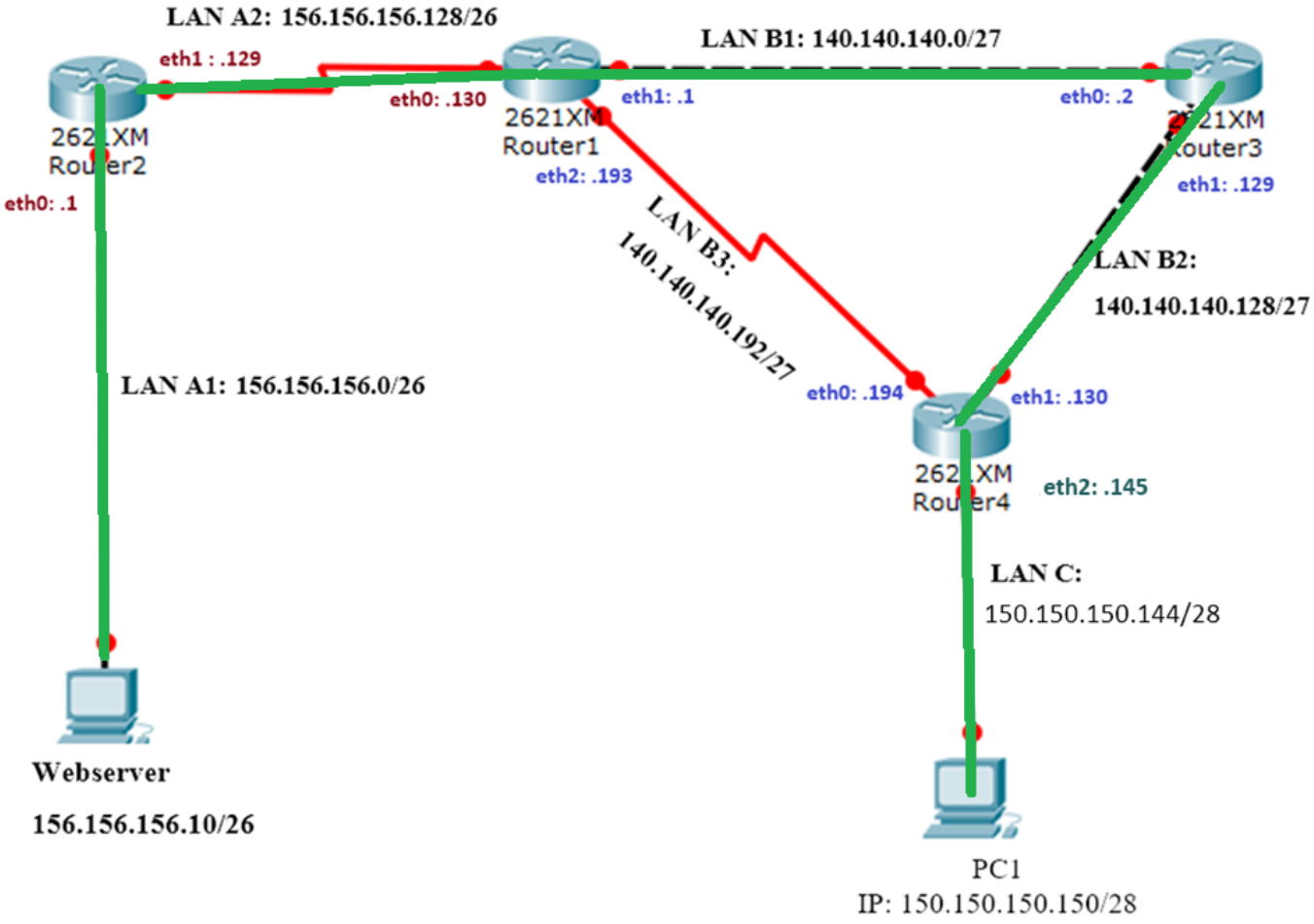
The command is **traceroute:** The output from **traceroute 156.156.156.10** indicates how many servers or hops it takes for transmitting data from **pc1** to the **server**. (from **150.150.150.150** to **156.156.156.10**).



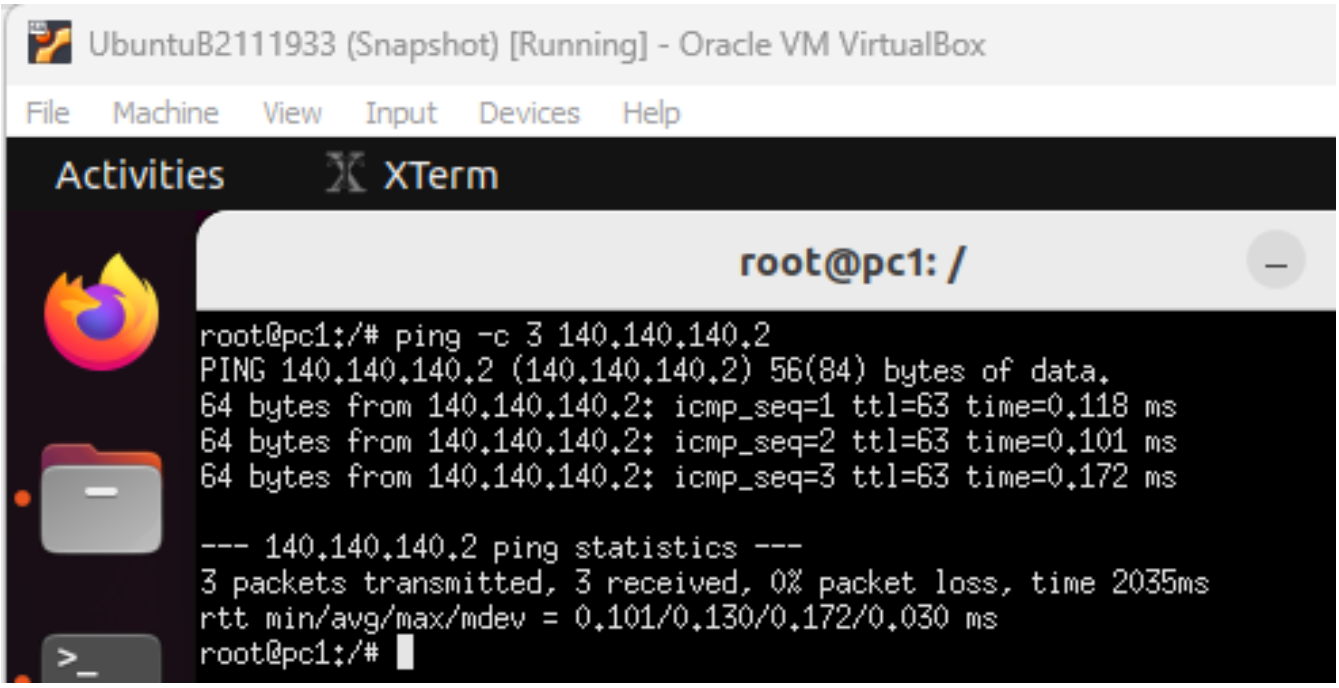
The destination is **156.156.156.10** and we need **4 hops**:
- The first next hop is **150.150.150.145 (r4).**
- The second is **140.140.140.193 (r1).**
- The third is **156.156.156.129 (r2).**
- The fourth (as the last) is **156.156.156.10 (server).**

7. Check the network system constructed.

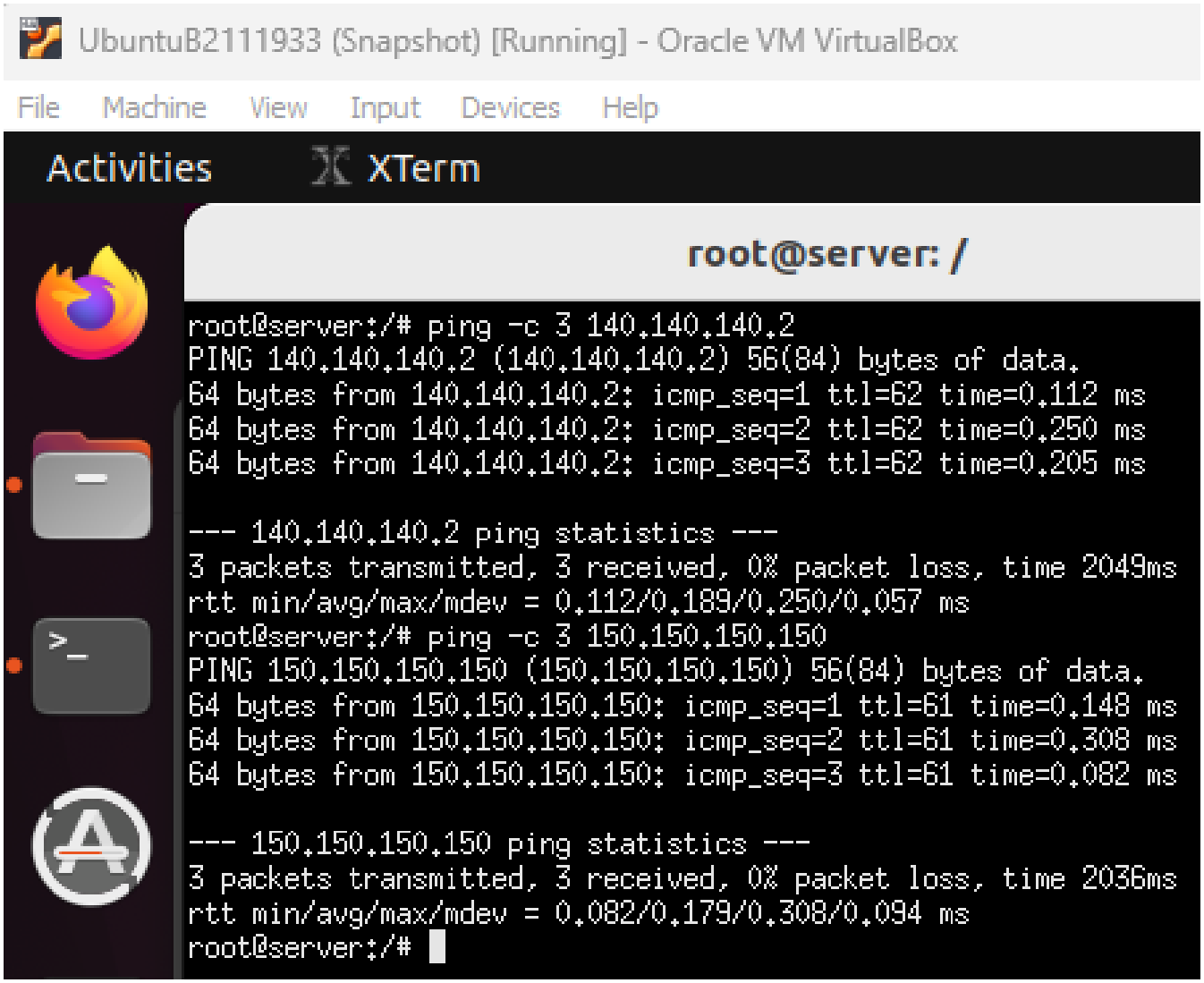
This is the only way that we need to check:



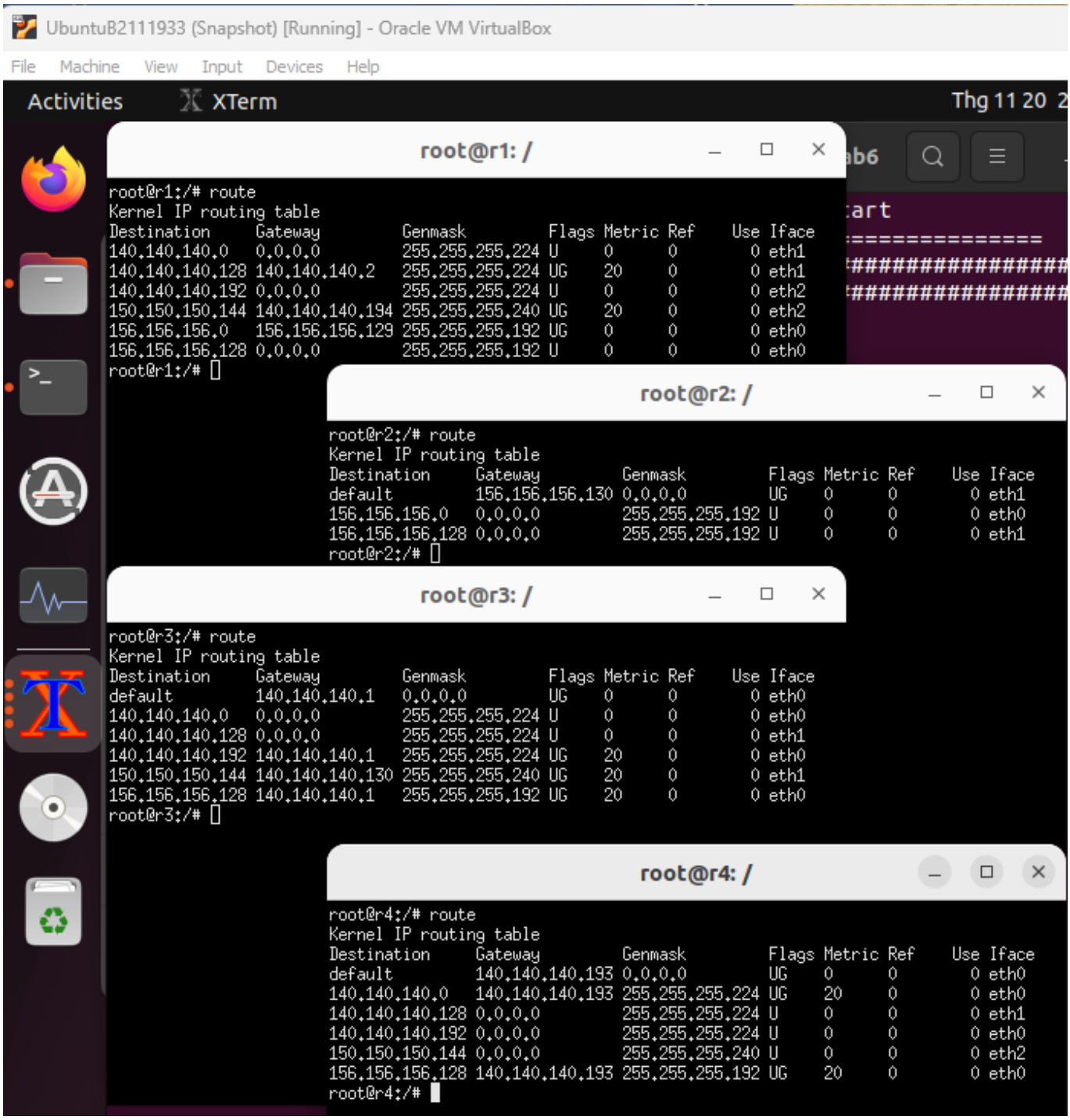
Test connectivity on the route from **pc1** to **r3:**



Test connectivity on the route from **server** to **r3:**



Listing network routing tables:



The End